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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,248

09/18/2006

Marc Peuker

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02/26/2010

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EXAMINER

MAI, HAO D

ART UNIT

PAPER NUMBER

3732

NOTIFICATION DATE

DELIVERY MODE

02/26/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/568,248	Applicant(s) PEUKER ET AL.	
	Examiner HAO D. MAI	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 51-89 is/are pending in the application.
- 4a) Of the above claim(s) 65-81 and 85-88 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 51-64, 82-84, 89 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. This application contains claims 65-81 and 85-88, currently withdrawn, drawn to invention(s) nonelected without traverse in the reply filed on 06/18/2009. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 102/103

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 51, 53-54, 82-84, and 89, are rejected under 35 U.S.C. 102(b) as anticipated by Wilcox et al. (5,743,436) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wilcox et al. in view of Zwingerberger (6,048,201).**

Regarding claim 51, Wilcox et al. disclose a unit-dose syringe (Figs. 1-4) comprising: a cartridge 12 having front and rear ends (best shown as 52 and 51 in Fig. 4) and a compartment 50 for each component; a static mixer 56 connectable with said cartridge at its front end, a

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mixing tip 54 being integrally connected to the cartridge at said front end of said cartridge and receiving said static mixer, said mixing tip and said cartridge being integrally formed as one part (Fig. 4). The syringe further comprises a plunger 42 being located in the inactivated state of the syringe, at said rear end of said cartridge, and movable towards the front end of said cartridge for dispensing material from said cartridge through said mixing tip.

Regarding the newly recited claim language "a mixing tip integrally formed as one part with the cartridge..." (claim 51 lines 6-7), it is noted and as also pointed out by Applicant that Wilcox et al. disclose that the mixing tip 54 and the cartridge housing 52 are connected by an adhesive, a welding process (Wilcox: Fig. 4; column 5 lines 45-51). The word "integral" is defined as "consisting or composed of parts that together constitute a whole" or "of, pertaining to, or belonging as a part of a whole" (www.dictionary.com). It is maintained that Wilcox's joining means by an adhesive and especially by a welding process meets the claim language "integrally formed as one part" since such permanent joining means makes the mixing tip 54 and cartridge housing 52 *integral parts of a whole device or forming a whole one piece/part/device*. Applicant is suggested to use the claim language "monolithically formed"; however, Applicant must have positive support for such claim language from the specification as originally filed so that no new matter is added.

Alternatively, if Wilcox, *arguendo*, fail to disclose the mixing tip 54 integrally formed as one part with the cartridge 52, such one piece construction would have been merely a matter of obvious engineering choice that is well within the skill of an artisan. *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965). Furthermore, Zwingenberger discloses a syringe comprising a mixing tip 30, head piece 28, and cartridge 22/24 being integrally formed as one part (Figs. 2, 4; abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wilcox et al. by making the mixing tip and the

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cartridge an integral unit so that it can be inserted into and removed from the syringe and be disposable after its use as taught by Zwingenberger.

As to claims 53-54, Wilcox's static mixer 56 comprises a mixing helix (column 5 lines 20-22), an outlet tip at the front end of said mixing helix, wherein said outlet tip projects from the front end of the mixing tip. **As to claims 82-84**, Wilcox et al. disclose the cartridge 12 having a substantially circular circumferential outer surface with the compartments 50 arranged concentrically. **As to claim 89**, the syringe may be pre-filled with a multi-component dental material (column 1 lines 40-50).

5. **Claims 52-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilcox or Wilcox in view of Zwingenberger, and further in view of Pauser et al. (2004/0262332 A1).**

As to claims 52-55, Wilcox/Zwingenberger disclose the invention substantially as claimed except for the static mixer 56 being collapsible and having a closure plug at its rear end. Pauser et al. disclose a syringe having a helix static mixer 5 that is collapsible (Fig. 3) and having a closing or sealing elements 11 at its rear end for closing the cartridge 6 (Fig. 1; paragraph 106). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wilcox/Zwingenberger by incorporating such closing or sealing plugs/elements at the rear end of the static mixer in order to seal the cartridge before use, preventing damage or contamination to the material inside the cartridge. Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wilcox/Zwingenberger by making the helix static mixer collapsible or compressible in order to efficiently empty all the material from the mixer.

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6. **Claims 56-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilcox/Zwingenberger in view of Pauser et al. as applied to claim 55, and further in view of Hunter et al. (6,572,031).**

As to claim 56, Wilcox/Zwingenberger/Pauser disclose the invention substantially as claimed except for the static mixer having an outlet tip that projects from the front end of the mixing tip. Hunter et al. disclose a syringe having a static mixer 4 with an outlet tip 6 that projects from the front end 16 of the mixing tip 10/17 (Fig. 4). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wilcox/Zwingenberger/Pauser by having the mixer's outlet tip projecting from the front end of the mixing tip as taught by Hunter et al. in order to establish a precise and fine point of delivery of the material. **As to claims 57-59**, Hunter et al. show that the static mixer is accommodated within the mixing tip 10/17; and that the outlet tip 6 of the mixer comprise corresponding retainers (area 5) that prevent the outlet tip from completely extends beyond the mixing tip. Note that such retainers comprise a recess (shoulder) in the wall that catches the projections (tapers) at the circumference of the outlet tip.

As to claims 60-64, Wilcox/Zwingenberger in combination with Pauser and Hunter et al. show that the first and second compartment are connected by a passageway (Wilcox; within area 52), and the plug(s) as provided by Pauser is capable of sealing either one of the compartments; wherein activation of said syringe by said plunger moves the plugs along the longitudinal direction of the syringe in order to free the passageway.

Response to Arguments

7. Applicant's arguments with respect to newly amendment to the claims have been considered but are moot in view of the new ground(s) of rejection. Applicant's remarks are held to be responded to in the new ground(s) of rejection as detailed above.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAO D. MAI whose telephone number is (571)270-3002. The examiner can normally be reached on Monday-Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**/Hao D Mai/
Examiner, Art Unit 3732**

/Cris L. Rodriguez/
Supervisory Patent Examiner, Art Unit 3732